MODEL TH110-SP-P

SUMMARY

OPTIONS SELECTION

- To change the temperature from °C to °F and back, maintain D button pressed down as RESET button is being pressed on and released. Then release D button.
- To change the time format from 24 hours to 12 hours and back, maintain H button pressed down as RESET button is being pressed on and released. Then release H button.

TO SET TIME AND DAY

- Press on D, H and M buttons to adjust time and day.

TO RECORD THE HEATING PROGRAMS

- Set the operating mode to AUTO. Use the P button to select the program to be recorded or modified. Once the program is selected, use H and M buttons to set time and ▲ or ▼ to select temperature setting.

TO RECORD THE ECONO PROGRAMS

- Set the operating mode to ECONO. Use the P button to select the program to be recorded or modified. Once the program is selected, use D, H and M buttons to set time and day and ▲ or ▼ to select temperature setting.

OPERATING MODES

- To select an operating mode, use MODE button.

AUTO: runs the programs. ▲ or ▼ shows temperature setting and can override temporarily your programming.
MAN: maintains the selected temperature. ▲ or ▼ changes temperature setting.
ECONO: maintains a temperature setting up to the user's pre-programmed day and time. ▲ or ▼ shows temperature setting.
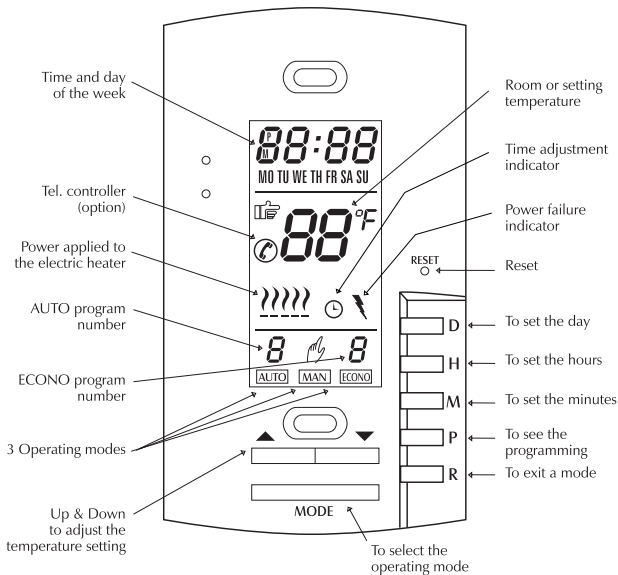
INSTALLATION

NOTE: The "Problems and Solutions" section at the end of this user's guide will help you to correct your problems during the installation.

This thermostat has been designed to operate with any installation which has a RESISTIVE load not exceeding 4800 W (20 A) such as electric baseboards, radiant ceilings and floors, electric convectors, etc. It is not compatible with a low voltage controller used by a central heating system.

Electricians or experienced technicians should install the thermostat.

This thermostat is designed to be used with a self-protected heating system equipped with thermal cut off and circuit breaker.

PARTS INCLUDED
- One (1) TH110-SP-P thermostat
- Two (2) 6-32 screws, 1 1/4 inches
- Three (3) solderless connectors

TURN OFF POWER OF THE HEATING SYSTEM AT THE MAIN POWER PANEL TO AVOID ELECTRIC SHOCK. Keep air vents of thermostat clean and free from obstructions.

1) Connecting wires and mounting thermostat

Connect the rear thermostat wires to the power supply and to the electric heater wires using solderless connectors for copper wires. See schematic diagram.

Push the excess wire back into the electric box to prevent interference with the thermostat. Secure the thermostat using two (2) 6-32 screws 1 1/4 inches long. Once the thermostat is properly installed, return power to heating system.
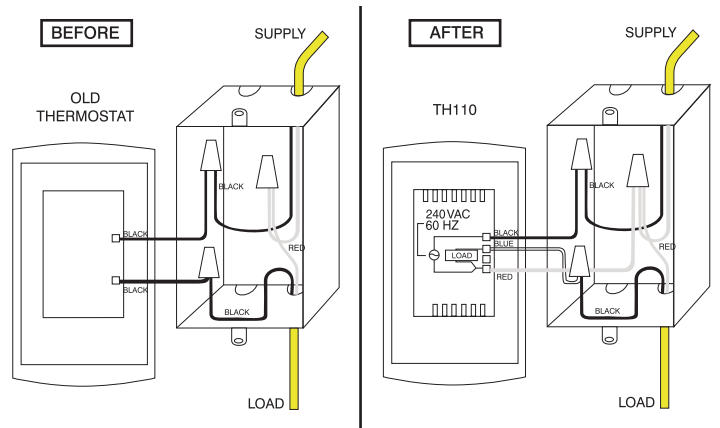
Note: All cables and connections must conform to the local electrical code.

WARNING: Special CO/ALR solderless connectors must be used when connecting with aluminum conductors.

2) Options selection

Some options have been factory set. Those default settings are:
The temperature is in °C and the time format is 24 hours.

2.1 Temperature displayed in °C or °F
To change the temperature from °C to °F and back, maintain D button pressed down as RESET button is being pressed on and released. Then release D button.

2.2 Time format displayed in 24 hours or 12 hours
To change the time format from 24 hours to 12 hours and back, maintain H button pressed down as RESET button is being pressed on and released. Then release H button.

3) Memory backup

In the event of a power failure, an internal circuit will maintain the programming. An icon ⭦ will be shown on the display. The display will stay on for 15 minutes; beyond this period, the display will turn off. Only the time will have to be set if power failure is more than six hours. The thermostat will return to the same operating mode as set before the power failure.

4) First power-up

When power is applied for the first time, the display must show the day and hour as follows:

0:00 MO (Monday)

The active operation mode is the framed MAN mode, the temperature setpoint is 20 °C (68 °F) and the ambiant temperature is displayed.

If the display is different, maintain P button pressed down as RESET button is being pressed on and released. Then release P button.
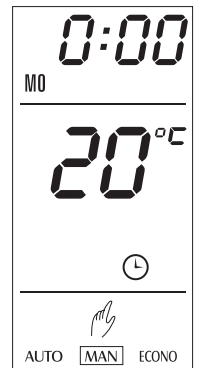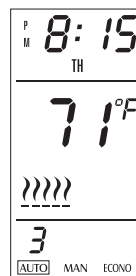

OPERATING MODES

The thermostat displays the icon 〽〽 when the heating system is on and turns it off when the heating system is off.

The TH110-SP-P thermostat has three (3) operating modes:

AUTO, MAN and ECONO.

They are selected through the MODE button. On display, the active mode is framed. The frame moves on to the next mode each time the MODE button is pressed on.

AUTO

The AUTOmatic mode runs in sequence (hourly) the programs recorded by the user.

By pressing once on ▲ or ▼ , the display shows the temperature setting. All subsequent pressures will override your programming up to the next program.

To see the weekday and weekend programs, select the AUTO mode and press successively on P button to see the programs appear on the display.
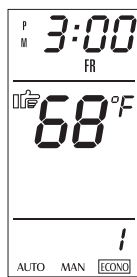
MAN
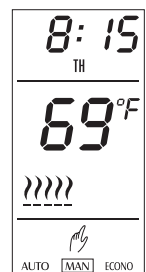
The MAN mode allows the user to override the programming.

The first time the ▲ or ▼ is pressed on, the temperature setting is displayed. For all subsequent times pressed on, the temperature setting will change 1 °C (1 °F).

ECONO

P M 3:00 FR
☞ 68 °F
1
AUTO MAN ECONO

P M 8:00 FR
☞ 59 °F
2
AUTO MAN ECONO

The ECONO mode has two (2) programs in which the day, the time and the setpoint have to be programmed. For instance, this operating mode can be used for a cottage installation where the user goes only on weekends.

Program 1: Friday 3:00 PM, 20 °C (68 °F)

Program 2: Friday 8:00 PM, 15 °C (59 °F)

The temperature will be maintained at 20 °C (68 °F) Friday from 3:00 PM to 8:00 PM, and maintained at 15 °C (59 °F) the rest of the week.

This gives you a comfortable temperature at your arrival and if you are not going to your cottage for the weekend, there will be only a minimal heating period.

To see the ECONO programs, select the ECONO operating mode and press on P button successively to see programs 1 and 2 appear on the display. In ECONO mode, by pressing once on ▲ or ▼ , the display shows the temperature setting. All subsequent pressures will override your programming up to the next program.

PROGRAMMING

1) Adjustment of time and day

Note: Select your OPTIONS before adjusting your time, because using the RESET button will set the time back to default 0:00 MO (Monday).

Example of setting: Thursday 8:15 AM

8:15 TH
□D
□H
□M
□R
AUTO MAN ECONO
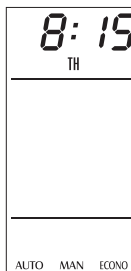
Use D, H and M buttons to set the time. Once set, press on R button to exit the time and day adjustment mode.

**Note 1**: 🕐 icon is showing you that the time must be set.

Note 2: The thermostat has an automatic return. When such functions as time recording, programs recording, etc., are not completed by pressing on return (R) button, the thermostat will automatically exit the mode after 60 seconds.

2) Typical suggested programs

This thermostat can store up to four (4) daily programs for weekdays and four (4) daily programs for the weekend. Also, there is two (2) programs for the ECONO mode. To practice programming use the following example.

Program number	Time	Temperature setting
Weekday programs (Mon...Friday)		
Program 1	6:30 AM	20 °C (68 °F)
Program 2	8:30 AM	15 °C (59 °F)
Program 3	4:30 PM	20 °C (68 °F)
Program 4	11:00 PM	15 °C (59 °F)
Weekend programs (Sat & Sun)		
Program 1	7:00 AM	20 °C (68 °F)
Program 2	8:30 AM	15 °C (59 °F)
Program 3	4:30 PM	20 °C (68 °F)
Program 4	11:00 PM	15 °C (59 °F)
ECONO mode programs (weekend cottage)		
Program 1	Friday 3:00 PM	20 °C (68 °F)
Program 2	Friday 8:00 PM	15 °C (59 °F)

3) Recording the heating programs
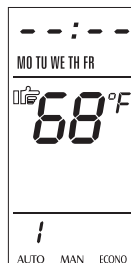
- - : - -
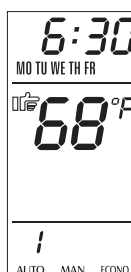MO TU WE TH FR
☞ 68 °F
1
AUTO MAN ECONO
□P

Select the AUTO mode.

Press on P button once.

The default values or the last recording of program 1 will be displayed.

The default values are:
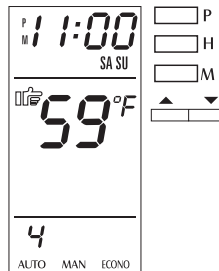• 20 °C (68 °F) and the time -- -- : -- --.

The days Monday to Friday are displayed to show that this program is for weekdays.

6:30
MO TU WE TH FR
☞ 68 °F
1
AUTO MAN ECONO
□H
□M
▲ ▼

Press on H and M buttons until 6:30 is displayed.

Press on ▲ or ▼ until 20 °C (68 °F) is displayed.

The first program is recorded.

P M 11:00 SA SU
☞ 59 °F
4
AUTO MAN ECONO
□P
□H
□M
▲ ▼

Press on P button again to record or modify weekday programs 2, 3 and 4 and weekend programs 1, 2, 3 and 4.

Use H, M, ▲ or ▼ buttons to modify the time and setpoint of programs.
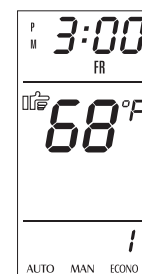
Programming is now completed. Press on R button or wait for the "automatic return" to exit the programming mode.

Note: A program time left at -- -- : -- -- is considered inactive.

To reset a program, use P button to select the program, then press on MODE button.

To review programs, press on P button successively to see the programs one after the other and make modifications if required.
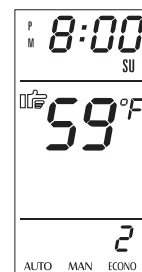
4) Recording the ECONO programs

P M 3:00 FR
☞ 68 °F
1
AUTO MAN ECONO
□P
□D
□H
□M
▲ ▼

Select the ECONO mode.

Press on P button once.

The default values or the last recording of program 1 will be displayed.

The default values are :
• 20 °C (68 °F) and the time -- -- : -- -- .

Use D, H, M and ▲ or ▼ buttons to record the day, the time and the setpoint of program 1.

P M 8:00 SU
☞ 59 °F
2
AUTO MAN ECONO
□P
□D
□H
□M
□R

Press a second time on P button.

The default values or the last recording of program 2 will be displayed.

Use D, H, M and ▲ or ▼ buttons to modify the day, time and setpoint of program 2.

Programming is now completed. Press on R button or wait for the "automatic return" to exit the programming mode.

CHARACTERISTICS

- Model: TH110-SP-P
- Electronic programmable thermostat
- Supply: 240 VAC, 50/60 Hertz
- Load: 20 A maximum, 1 HP
- Power: 4800 W @ 240 VAC
- Power consumption (off): 860 mW
- Approvals: CSA NRTL/C
- Display range: 0 °C to 99 °C (0 °F to 99 °F)
- Setting range: 5 °C to 27 °C (40 °F to 80 °F)
- Storage: -20 °C to 50 °C (-4 °F to 120 °F)
- Temperature regulation: 1 °C (1 °F)
- Precision: ± 0.5 °C (1 °F) (4800 W)
- 10 programs: 4 weekday programs, 4 weekend programs and 2 ECONO programs

WARRANTY

If you have any questions concerning the installation or programming of this product, please call our technical assistance at (450) 358-4600 for the Montreal area or **1-800-831-AUBE** for outside area, Monday to Friday between 8:30 AM and 5:00 PM Eastern time.

ATTENTION: SEE TABLE PROBLEMS AND SOLUTIONS ON ATTACHED ANNEXE.

PROBLÈMES ET SOLUTIONS

PROBLÈMES	CAUSES	SOLUTIONS
Pas d'affichage	• Disjoncteur ouvert • Panne de courant prolongée (plus de 15 minutes)	• Vérifiez la présence du 240 Vca au thermostat
Le thermostat perd l'heure mais pas la programmation	• Panne de courant de longue durée (plus de 6 heures)	
Affichage de la température ambiante incorrect	• Courant d'air à proximité	• Éliminez les courants d'air
Système de chauffage toujours en marche	• Mauvaise installation	• Vérifiez l'installation • Appuyez sur le bouton P pendant que vous enfoncez et relâchez le bouton RESET. Ensuite, relâchez le bouton P.
Le thermostat affiche du chauffage mais le sytème de chauffage ne chauffe pas	• Mauvaise installation • Panne de courant (L'icone ⚡ est allumée à l'écran.)	• Vérifiez l'installation • Vérifiez la présence du 240 Vca au thermostat
Les programmes ne changent pas comme vous le souhaitez	• Heures de programmation incorrectes • Mauvais mode d'opération sélectionné	• Vérifiez les heures actuelles de programmation (Attention au format AM et PM, AM n'est pas affiché) • Assurez-vous que vous avez choisi le mode d'opération AUTO

PROBLEMS AND SOLUTIONS

PROBLEMS	CAUSES	SOLUTIONS
No display	• Circuit breaker is open • Power failure more than 15 minutes	• Check 240 Vac presence at the thermostat
The thermostat is loosing the time but not the programming	• Power failure more than 6 hours	
Room temperature shown is wrong	• A draft is near the thermostat	• Eliminate the draft
Heating system always on	• Bad installation	• Check installation • Maintain P button pressed down as RESET button is being pressed and released. Then release P button.
The thermostat displays heating but heating system is not turned on	• Bad installation • Power failure (Icon ⚡ is shown on display)	• Check installation • Check 240 Vac presence at the thermostat
Programs do not change as you want	• Incorrect programming hours • Wrong programming mode selected	• Check actual time in AM & PM as well as program times (AM is not displayed) • Make sure operating mode is set to AUTO

PROBLEMAS Y SOLUCIONES

PROBLEMAS	CAUSAS	SOLUCIONES
La pantalla no marca	• Disyuntor abierto • Corte de corriente eléctrica prolongado (más de 15 minutos)	• Verifique la presencia de 240 Vca del termostato
El termostato pierde la hora pero no la programación	• Pérdida de corriente de larga duración (más de 6 horas)	
Marca la temperatura ambiente incorrecta	• Corriente de aire a proximidad	• Elimine la corriente de aire
Sistema de calefacción siempre en marcha	• Mala instalación	• Verifique la instalación • Presione el botón P mientras presiona y suelta el botón RESET. Suelte enseguida el botón P.
El termostato marca la calefacción pero el sistema de calefacción no calienta	• Mala instalación • Corte de corriente eléctrica (el icono ⚡ se enciende en la pantalla)	• Verifique la instalación • Verifique la presencia del 240 Vca en el termostato
Los programas no cambian como usted desea	• Horas de programación incorrectas • Selección de un modo de operación erróneo	• Verifique las horas de programación actuales (Cuidado con el ciclo AM y PM, AM no aparece en pantalla) • Asegúrese de haber elegido el modo de operación AUTO